

REMARKS

Minor typographical corrections have been made to the specification. Claims 3, 8, 13, 18, 23, and 28 have been amended. No new matter has been introduced with these corrections or amendments, which are supported in the specification as originally filed. Claims 1 - 33 remain in the application.

An error was inadvertently made when amending Claims 3, 13, and 23 in the previous Amendment/Response (which was filed July 15, 2003). That error is corrected herein, restoring the claim language in the second element of these claims to its original form. A client request requests a connection to some host (e.g., a host which is reachable through the entity where the connection request is received). For example, the client may have determined that content of interest is available from that host. (The previous Amendment/Response correctly explained that the "host" to which this limitation pertains is not the server at which the connection requests are received. However, that Amendment/Response incorrectly stated that the host is the host from which the connection request originated. Instead, it is the target of the connection request -- i.e., the other endpoint of the client's connection.) The claim language, as originally presented, described the proper relationship between the client and the host.

Claims 8, 18, and 28 are amended herein to further specify that, when an elapsed time value (which measures how long a worker thread has been performing work) has been exceeded, then -- in addition to deactivating the worker thread, as in the original claim language -- it can be concluded that a connection to this selected host has failed. This amendment more closely aligns

the language in these claims with language in Claims 6, 16, and 26 from which they depend, respectively: those claims specify limitations pertaining to monitoring whether connections to hosts fail. (Refer to p. 22, lines 4 - 10 of Applicants' specification, where this is discussed. See also p. 18, line 20 - p. 19, line 2 and p. 19, lines 4 - 6.)

Thus, it can be seen that no new matter has been introduced.

I. Rejection Under 35 U.S.C. § 102(e)

Paragraph 8 of the Office Action dated October 10, 2003 (hereinafter, "the Office Action") states that Claims 1 - 2, 11 - 12, 21 - 22, and 31 - 33 are rejected under 35 U.S.C. § 102(e) as being anticipated by U. S. Patent 5,761,507 to Govett. This rejection is respectfully traversed.

Applicants' independent Claims 1, 11, and 21 contain limitations which are not found in the Govett reference. The third element of these claims specifies transferring client requests from an incoming queue to a "wide queue", where this wide queue comprises "a plurality of queues wherein each of said queues is separately synchronization-protected". See Fig. 3 of Applicants' specification. This figure shows wide queue 310 being comprised of a *plurality of other queues*. As illustrated therein, the plurality of queues are depicted as connection queues 1 through N (see reference numbers 311 - 314).

Govett has *no teaching* of a queue that comprises a *plurality of queues*. Govett teaches

use of a *single* queue, which is shown in Govett's Fig. 3 at reference number 310. (This single queue 310 in Govett is not to be confused with Applicants' wide queue, which is coincidentally also marked with reference number 310.)

Paragraph 4 of the Office Action states that Govett's references to receiving a first request and receiving a second request, where both of these requests are placed in Govett's request queue 310, demonstrate that Govett teaches a plurality of queues. In fact, the quotations from the cited text which are presented in the Office Action (referencing col. 6, lines 54 - 59 and col. 7, lines 9 - 14) demonstrate exactly the opposite. The quotations in the Office Action state that the first request is directed to Govett's request queue 310, and that the second request is also directed to this same request queue 310. This does not teach a queue comprised of a plurality of queues, which is a limitation of Applicants' independent Claims 1, 11, and 21.

Paragraph 4 of the Office Action also wrongly characterizes Applicants' claimed invention as specifying a limitation of "creat[ing] multiple requests from multiple clients". Applicants' invention is directed toward how such requests are queued, and in particular, queues those requests first in "an incoming queue" (see the second element of Claims 1, 11, and 21) and then, after transfer from the incoming queue, the requests are queued in "a wide queue" that is comprised of "a plurality of queues" (see the third element).

Queuing multiple client requests onto a single queue (as taught by Govett) is patentably distinct from queuing client requests onto a wide queue comprised of multiple queues. Govett

teaches a plurality of queued messages, whereas Applicants' claims specify a plurality of queues.

The cited text from col. 11, lines 55 - 67 merely discusses how a newly-started server registers itself with Govett's transaction manager ("XMAN") and states that the number of available servers is counted. This has nothing to do with a plurality of queues. The cited text in col. 6, line 53 - col. 7, line 39 discusses directing requests from request queue 310 to one or several servers for processing. A server is not a queue, nor does a discussion of multiple servers (as in this cited text) teach use of a wide queue comprised of a plurality of queues (as in Applicants' Claims 1, 11, and 21).

None of the text cited in the Office Action discusses a queue of queues, and thus a *prima facie* case of anticipation has not been made out as to Applicants' independent Claims 1, 11, and 21. These independent claims, as well as their dependent Claims 2, 12, 22, and 31 - 33, are therefore deemed patentable. Accordingly, the Examiner is respectfully requested to withdraw the §102 rejection.

II. Rejection Under 35 U.S.C. § 103(a)

Paragraph 14 of the Office Action states that Claims 3 - 10, 13 - 20, and 23 - 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Govett in view of U. S. Patent 6,427,161 to LiVecchi. This rejection is respectfully traversed.

Applicants' independent Claims 3, 13, and 23 are directed toward controlling the number

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of threads that are concurrently assigned to processing work for any particular host. If the host to which an incoming client request refers is determined to already have connections with the maximum number of allowable worker threads, then this incoming client request is not processed. (As explained in Applicants' specification, this technique limits the number of blocked threads, if the connected-to host blocks or fails.)

Page 6, lines 10 - 12 of the Office Action cite col. 7, lines 9 - 50 of Govett as teaching the fourth limitation of Applicants' independent Claims 3, 13, and 23. This limitation of Applicants' claims specifies determining how many connections to the requested host are currently assigned to worker threads. The cited text from Govett pertains to measuring queue length in order to determine whether a new server should be started. See, for example, col. 7, lines 15 - 17 ("... the queue length equals the server start value ... and a signal is sent to the service start/stop element 316 which will then start server 2"). However, neither the queue length nor the number of active servers indicates, in any way, how many worker threads currently have connections to any particular host (as in Applicants' Claims 3, 13, and 23).

LiVecchi also *does not teach* this fourth limitation of Applicants' Claims 3, 13, and 23. The cited text from LiVecchi (col. 14, lines 16 - 63 and col. 18, line 63 - col. 19, line 10) discusses controlling the number of unblocked (i.e., running) threads. Under certain conditions, a thread may be unblocked. See, for example, col. 14, lines 16 - 26, where an example is presented of computing when a thread can be unblocked. See also col. 14, line 51, stating that when Block 210 is executed (that is, when the test at Block 205 of Fig. 3B indicates that a thread should be

awakened), a thread is unblocked.

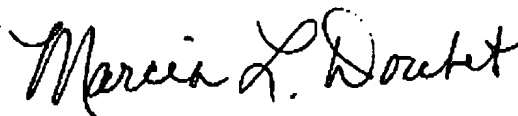
Determining how many threads should be running or unblocked (as taught by LiVecchi) is not the same thing as determining how many threads have connections to some host (as specified in the fourth limitation of Applicants' Claims 3, 13, and 23).

Accordingly, it has been demonstrated that neither Govett nor LiVecchi teach the fourth element of Applicants' independent Claims 3, 13, and 23, and the references therefore cannot be combined to render these claims obvious. These independent claims, as well as their dependent Claims 4 - 10, 14 - 20, and 24 - 30, are therefore deemed patentable. Accordingly, the Examiner is respectfully requested to withdraw the §103 rejection.

III. Conclusion

Applicants respectfully request reconsideration of the pending rejected claims, withdrawal of all presently outstanding rejections, and allowance of all claims at an early date.

Respectfully submitted,



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